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White Paper:

Airline Industry-Specific

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There are several metrics essential to airline analysis that are unavailable on standard cash flow, balance sheet or income statements.

When analyzing airline companies, it is important to note that there are numerous metrics available that are essential to fundamental analysis that are not necessarily reflected on the face of cash flow, balance sheet or income statements. Unique items such as load factor and revenue passenger miles reveal the profitability and growth of airline carriers. Yet these items are often buried in a particular airline's 10-K or 10-Q; they might be found in the Management's Discussion and Analysis or they might be found in a separate table or note, depending on how an individual airline reports its financial data.

To take the legwork out of locating these important items, Compustat offers its airline industry-specific data set. We have collected a number of data items from airlines based on their importance in analysis and standardized them so they are immediately useful in analytic comparison. The data set covers the GICS sub-industry of Airlines (20302010) and includes categories covering passenger traffic, revenue yield, and costs. This paper will go through each of these categories and describe the significance of the data items and how they might be used in analysis. A complete listing of the data is available at the end of this paper.

Passenger Traffic

When beginning an analysis of airlines, traffic is a major consideration. Traffic is primarily an indicator of growth—the more passengers a carrier flies, the more revenues it takes in and the bigger it becomes. Compustat provides two traffic measures commonly reported in the industry: **Revenue Passengers Carried (AIRRPC)** and **Revenue Passenger Miles (AIRRPM)**. Revenue passengers carried is also referred to as *enplanements*—the actual number of passengers carried during a period. Revenue passenger miles (termed RPMs) is the total number of passengers carried multiplied by the average distance flown. Both enplanements and RPMs are used to analyze traffic, though RPMs more closely follow airline revenues and are therefore a better analytic tool. A carrier's RPMs should be looked at over time to determine how the company is growing; RPMs can also be compared to industry and peer averages to determine to what degree the airline is gaining or losing market share. Because much of the traffic airlines receive is seasonal, RPM changes on a year-over-year basis (rather than over shorter periods) are the most meaningful for comparison purposes. Numbers should also be compared to like-carriers[1]—start-ups and regional airlines typically outperform major airlines in traffic growth because their traffic base is much smaller. It is important to note that RPM growth does not signify profitability. Although a company may grow its traffic, this does not indicate its costs are kept in check.

Revenue passenger miles (RPMs) can be tracked to determine growth and market share gains.

As one determinant of profitability, analysts look at passenger load factor. Passenger load factor represents capacity utilization—what percent of an airline's seats are filled during a period. Given the high costs of fuel and labor for an individual flight, the more passengers that can be boarded, the more profitable the flight potentially becomes. Load factor is calculated by dividing RPMs by the number of miles made available to passengers (commonly called available seat miles or ASMs). Compustat provides **Passenger Load Factor (AIRPLF)** in addition to its components, **Available Seat Miles (AIRASM)** and **Revenue Passenger Miles (AIRRPM)**. It is to be noted that, on its own, load factor is not an infallible metric for determining profitability. Shifts in available seats, costs, and ticket prices can affect profits and cause load factor to have less meaning. For instance, in late 2000 and early 2001, United Airlines reduced seating capacity to

[1] U.S. airlines can be divided into the categories of major airlines (annual revenue over $1 billion), national airlines (annual revenue between $100 million and $1 billion) and regional airlines (annual revenue less than $100 million). Start-up airlines are often classified as regional based on their income.

increase legroom. This resulted in increasing their load factor, yet it did not make them significantly more profitable.

To give analysts a better idea of what an airline's load factor means relative to profit, Compustat provides **Break-Even Load Factor (AIRBELF)**, the percentage of capacity that must be filled for an airline to break even in terms of operating expenses. A carrier's break-even load factor changes based on ticket prices and costs, and can be compared to passenger load factor to see what percentage of load factor is over (or under) the break-even point. Such a comparison is an indicator of the margin airlines are making on flights.

Revenue Yield

Alongside traffic metrics, analysts take into account what is termed *yield*, an airline's revenue per RPM or ASM. Compustat provides yield with the items **Passenger Revenue per Revenue Passenger Miles (AIRPRRPM)** and **Passenger Revenue per Available Seat Miles (AIRPRASM).** Both of these metrics are useful for trending yields, though passenger revenue per ASM is the indicator most closely watched by financial analysts. They are also useful for comparing like-airlines. Because yields vary according to flight type—regional short-haul flights, for instance, tend to have a higher yield than longer international flights—yields should only be compared between like-airlines that have a similar mix of international and domestic flights.

Passenger revenue per aircraft seat miles is the most closely watched yield indicator.

In addition, Compustat offers the yield item **Total Revenue per Available Seat Miles (AIRTRASM)**. Total revenue not only accounts for passenger revenue, but the 10% of revenue that carriers typically generate from cargo-hauling operations, in-flight amenities, and other non-passenger revenue sources. These revenues can make the difference between an operating profit or loss. Therefore many analysts prefer total revenue per available seat miles as a fuller picture of revenue generation.

Costs

Depending on the airline, it is often more important to evaluate costs than revenues. Start-up companies that aggressively grow in traffic and revenues have a tendency to fail, while carriers that show moderate growth and manage costs have a better chance of prospering. To evaluate costs, Compustat offers data on fuel usage, aircraft and operating expenses.

Fuel costs are the greatest expense for airlines and have a swing effect on profits.

As a result of the precipitous rise in the prices of crude oil and jet fuel, fuel has eclipsed labor as the largest expense for airlines. In 2006, fuel costs accounted for 26% of revenues among the 10 largest carriers. Fuel costs have a swing effect on airline profits and airline stocks often shift with changes in the price of jet fuel. To account for fuel expenses, Compustat provides three measures: **Average Fuel Price per Gallon (AIRAFXPG), Fuel Consumed (AIRFCG),** and **Fuel Expense (AIRTFX)**.

Average fuel price approximates how much airlines pay for fuel in a period. Increasing prices have caused many airlines to hedge their costs by buying on the futures market. Average fuel prices can therefore vary between carriers by as much as 10 to 15 percent. Comparing average fuel prices across companies and over time, one can see how well hedging efforts have paid off towards lowering fuel costs.

As a measure of fuel efficiency, **Fuel Consumed (AIRFCG)** can be divided by available seat miles (ASMs) to determine how many gallons of jet fuel were consumed per ASM. Some fleets are more efficient than others, and older planes tend to use more gas than newer planes. Given rising fuel costs, an airline that consumes less jet fuel per ASM has a distinct competitive advantage.

The **Average Age of Aircraft (AIRAVAGE)** is another gauge of efficiency. The younger the aircraft, the more fuel efficient they are, thus decreasing expenditures for fuel. Younger aircraft also require less maintenance. Maintenance is a major category of expenses for airlines (in 2006 it accounted for 4.9% of revenues for the average carrier) and having newer aircraft lowers maintenance costs significantly.

Whether an airline leases or owns its aircraft can also have an effect on costs. Using **Total Aircraft in Service (AIRFLT), Aircraft Leased (AIRTL),** and **Aircraft Owned (AIRTO),** analysts can derive the percentage of how much of an airline's fleet is leased or owned. For airlines whose balance sheets are stretched, leasing aircraft is the most affordable option. Major airlines typically lease the bulk of their fleet—approximately 55% of their fleets are leased. Lessors can finance purchases of aircraft more cheaply than airlines because they have a better credit rating, and these savings are passed along to airlines who lease. On the other hand, airlines that have very strong balance sheets, and therefore higher credit ratings, will find it cheaper to own than lease aircraft. Equipment costs are about 10% of airlines expenses, and airlines that can own a high percentage of their aircraft may be able to lower equipment costs significantly.

In addition to fuel and aircraft data, Compustat provides **Operating Expenses per Available Seat Miles (AIROEASM)**, an expense measure commonly reported by airlines. This item is given in cents and covers all operating expenses including fuel. Not only is this a key indicator of expenses, it can also be compared to the aforementioned **Passenger Revenue per Available Seat Miles (AIRPRASM)** to determine profitability. Subtracting operating expenses per ASM from passenger revenue per ASM gives the margin that airlines are making per seat mile. Many analysts like to use **Total Revenue per Available Seat Miles (AIRTRASM)** in this calculation as it provides a more complete picture of a carrier's revenue.

Operating Expenses per ASM can be compared to Passenger Revenue per ASM to determine an airline's margin per seat mile.

Case Study

Let's take a look at an example of some of the Compustat data we've discussed. Table 1 represents annual data from the last three fiscal years for AirTran Holdings Inc. (AAI / NYSE) and JetBlue Airways Corp. (JBLU / NASDAQGS). Both airlines are similarly sized and specialize in low-cost regional flights out of the East. Both ended their fiscal year in December.

Table 1

		AirTran Holdings Inc. (AAI)			JetBlue Airways Corp. (JBLU)		
Data Item	**Mnemonic**	**2007**	**2006**	**2005**	**2007**	**2006**	**2005**
Revenue Passenger Miles	AIRRPM	17,297,724	13,836,378	11,301,534	25,737,000	23,320,000	20,200,057
Available Seat Miles	AIRASM	22,692,355	19,007,416	15,369,505	31,904,000	28,594,000	23,703,094
Passenger Load Factor (%)	AIRPLF	76.2	72.8	73.5	80.7	81.6	85.2
Break-Even Load Factor (%)	AIRBELF	73.2	71.7	73.4	80.7	81.4	86.1
Total Revenue per ASM (cents)	AIRTRASM	10.18	9.96	9.44	8.91	8.26	7.18
Operating Expenses per ASM (cents)	AIROEASM	9.57	9.74	9.35	8.38	7.82	6.91
Operating Margin per ASM (cents)	AIRTRASM – AIROEASM	0.61	0.22	0.09	0.53	0.44	0.27
Avg Fuel Price per Gallon (cents)	AIRAFXPG	223.3	217.2	184.9	209.0	199.0	161.0
Fuel Consumed (gallons)	AIRFCG	359,759	310,926	255,643	444,000	377,000	303,035
Fuel Consumed per ASM (gallons)	$\frac{\text{AIRFCG}}{\text{AIRASM}}$	0.016	0.016	0.017	0.014	0.013	0.013
Aircraft Age (years)	AIRAVAGE	4.0	3.3	2.9	3.1	2.6	2.7

We've divided the data into three sections: passenger traffic, revenues/expenses, and fuel data. Looking at traffic between 2006 and 2007, AirTran increased revenue passenger miles by 3,461,346 miles, a 25% increase. In the same period, JetBlue had a more modest increase of 2,417,000 miles, a 10% gain. It would appear that AirTran is increasing its market share at a faster rate. In terms of passenger load, although JetBlue has a consistently higher passenger load factor (in the 80s), AirTran has demonstrated a higher passenger load in relation to its break-even load factor, about 3% higher in 2007, suggesting a higher profit margin. We can see evidence of better profitability as AirTran's operating margin per ASM came in at a slightly higher .61 cents in 2007 compared to JetBlue's .53 cents. AirTran was able to lower its operating expenses in 2007, causing their operating margin per ASM to jump significantly compared to 2005 and 2006. It does appear that JetBlue is able to keep its costs generally lower than

AirTran—JetBlue's operating expense per ASM is consistently lower, as well as its average fuel price. In addition, JetBlue has a slightly more efficient fleet. Their fuel consumed per ASM is lower, suggesting their fleet is able to travel more miles per gallon of jet fuel. The average age of JetBlue's fleet is about .9 years younger than AirTran's, indicating better fuel efficiency and less maintenance costs. For a complete analysis, it would also be helpful to look at industry averages for each of these figures.

Summary

Compustat provides several key industry-specific data points for analyzing airlines. The industry-specific data has been selected according to its significance—the items are widely meaningful within the industry, and airlines commonly report them in 10K's, 10Q's, newswires or website data sources. Compustat's data has been further standardized to remove discrepancies in the way companies report items; the data is immediately comparable across companies and time, and is a reliable indicator of trends in the industry.

We hope that this guide has served as a primer to understanding the airline industry and how our data might be used in analysis. For more information on analyzing airlines, see Standard & Poor's *Industry Survey: Airlines*. Industry surveys are available with a subscription to Standard & Poors Market Insight.

Airline Industry-Specific Data Items

Mnemonic	Data Item Name	Units
	Aircraft	
AIRTL	Aircraft Leased	Actual
AIRTO	Aircraft Owned	Actual
AIRFLT (Q)	Total Aircraft in Service	Actual
AIRAVAGE	Average Age of Aircraft	Years
	Revenue Yield	
AIRPREV (Q)	Passenger Revenue	Millions
AIRPRASM (Q)	Passenger Revenue per Available Seat Miles	Cents
AIRPRRPM (Q)	Passenger Revenue per Revenue Passenger Miles	Cents
AIRTRASM (Q)	Total Revenue per Available Seat Miles	Cents
	Passenger Traffic	
AIRRPC (Q)	Revenue Passengers Carried	Thousands
AIRRPM (Q)	Revenue Passenger Miles (RPM)	Thousands
AIRASM (Q)	Available Seat Miles (ASM)	Thousands
AIRRPK (Q) *	Revenue Passenger Kilometers (RPK)	Thousands
AIRASK (Q) *	Available Seat Kilometers (ASK)	Thousands
AIRPLF (Q)	Passenger Load Factor	Percentage
AIRBELF	Break-even Load Factor	Percentage
	Fuel	
AIRFCG (Q)	Fuel Consumed	Gallons
AIRAFXPG (Q)	Average Fuel Price per Gallon	Cents
AIRTFX (Q)	Fuel Expense	Millions
	Expenses	
AIROEASM (Q)	Operating Expenses per Available Seat Miles	Cents

(Q) signifies the item is available quarterly as well as annually.
* These items are given in kilometers by many non-U.S. companies.

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